# Missouri Heart Disease and Stroke Prevention News E-Bulletin

Spring 2010

## Chronic Disease Stakeholders Provide Critical Input for the Development of the New Integrated Chronic Disease Prevention and Management Plan for Missouri

**Inside This Issue:**




Between September 28 and October 16, 2009, the Department conducted structured interviews via telephone with 60 invited stakeholders. The stakeholders represented local public health agencies, medical care providers, state government agencies, health plans, employers, advocacy organizations, etc. The purpose of the stakeholder interviews was to assess the state of chronic disease prevention and management in Missouri and to generate ideas for integration. On October 20, 2009, preliminary findings from the interviews were presented to Department personnel who are responsible for managing categorical programs. Ten themes emerged from the process of pairing stakeholder interview findings with input from Department personnel. The themes are being used to guide the project team's ongoing work to develop goal statements for the forthcoming integrated plan for chronic disease prevention and management. This document represents a step forward in the process to develop an integrated plan for chronic disease prevention and management. It reflects the ideas gathered from structured interviews with stakeholders and is being distributed to them as part of a continued dialogue. To obtain a copy of the Emerging Themes document or other information about the strategic planning process, contact Kris Kummerfeld at kris.kummerfeld@dhss.mo.gov.

**Ten Emerging Themes:**

***Disease Prevention and Management are Different***

***System Change is a Shared Responsibility***

***Behaviors and Incentives are Related***

***All Social Determinants Must be Considered***

***Clear, Coordinated Communication is Required***

***Self-management Depends on Mental Health***

***Proactive and Coordinated Care is Supported with Information Technology***

***A Common Agenda for Wellness Supports Policy Development and Advocacy***

***Quality of Life is a Primary Outcome***

***Long-term Strategy includes Short-term Gains***

# Institute Of Medicine (IOM) Report Declares High Blood Pressure a Neglected Disease, Calls for Strategies to Change Americans' Lifestyles and Diets to Curb Hypertension

Hypertension, also known as high blood pressure, is one of the nation's leading causes of death, responsible for roughly one in six deaths among adults annually. Nearly one in three adults has hypertension, which places huge economic demands on the health care system, estimated at $73.4 billion in direct and indirect costs in 2009 alone. The Centers for Disease Control and Prevention (CDC), which leads the federal government's efforts to reduce the impact of hypertension, asked the IOM to identify high-priority areas on which public health organizations and professionals should focus to accelerate progress in hypertension reduction and control.

In this report, the IOM recommends that the CDC as well as state and local health jurisdictions focus on population-based strategies that can reach large numbers of people and improve the well-being of entire communities. Behavioral and lifestyle interventions - reducing sodium intake, increasing consumption of fruits and vegetables and increasing physical activity - are among the best examples. The report also highlights the need to improve providers' adherence to the treatment guidelines for hypertension, especially in the elderly population and to encourage patients to take medication consistently by reducing or eliminating the cost of antihypertensive medication.

The Cardiovascular Health Council of the National Association of Chronic Disease Directors (NACDD) convened a workgroup of state health department and CDC staff to guide the development of tools for state heart disease and stroke prevention programs to use in putting the IOM's recommendations into action. Lisa Britt, Health Educator for Missouri's HDSP Heart Disease and Stroke Prevention program is a member of the workgroup. The workgroup met in Atlanta, Georgia on March 17 and 18, 2010 and reviewed the report in detail to begin the work of translating the recommendations into tools that will be useful for the states. It is anticipated that the workgroup will continue to meet via conference calls until the tools are completed in the summer of 2010.

Copies of A POPULATION-BASED POLICY AND SYSTEMS CHANGE APPROACH TO PREVENT AND CONTROL HYPERTENSION are available from the National Academies Press; telephone 202-334-3313 or 1-800-624-6242 or on the Internet at HTTP://WWW.NAP.EDU. Information on the study can also be found at HTTP://WWW.IOM.EDU/REDUCEHYPERTENSION. The full report can be found at: http://www.nap.edu/catalog.php?record_id=12819.

# ANNOUNCEMENTS

### *American Heart Association Defines 'Ideal' Cardiovascular Health, Sets New Goal to Focus On Improving Health Factors and Lifestyle Behaviors*

For the first time, the American Heart Association has defined poor, intermediate and ideal cardiovascular health - using seven easy-to-understand measures. This new definition, focusing on health factors and lifestyle behaviors, comes when an association survey finds that nearly four in ten American adults (39 percent) think they have ideal heart health; yet 54 percent of those said a health professional had told them they had a risk factor for heart disease and/or needed to make a lifestyle change to improve their heart health. Armed with these findings, the American Heart Association has launched a national goal to not only reduce deaths from cardiovascular diseases and stroke but also to improve the cardiovascular health of Americans. The association has developed a new online resource to help people assess their health and develop unique steps to change behavior and improve their heart health goals.
View the multimedia assets at**:** http://multivu.prnewswire.com/mnr/americanheart/41977/

### *New Missouri Heart Disease and Stroke (HDS) Partnership Created*

Two Center for Disease Control and Prevention (CDC) - funded public health programs in Missouri recently expanded their collaboration so they could share resources and avoid duplication of effort. Missouri's Heart Disease and Stroke Prevention Program (HDSP) stresses policy and system changes to promote heart and stroke health. The Missouri Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) Program provides low-income, underinsured or uninsured women with chronic disease risk factor screening, lifestyle intervention and referral services. Both programs are concerned with reducing the risk of heart disease and stroke.

In fiscal year 2009, CDC requested that all of the funded state HDSPs evaluate the effectiveness of their partnerships. The HDSP program staff saw CDC's request as an opportunity to restructure their advisory board to better utilize the strengths of their partners to support the HDSPs policy and environmental objectives. HDSP program evaluator, Ellen Ehrhardt, was instrumental in conducting a thorough evaluation of the previous HDSP Advisory Board. This assessment served as the foundation for building the new partnership structure.

HDSP and WISEWOMAN programs decided to combine their efforts by replacing their separate and partially overlapping advisory boards with a partnership group consisting of three workgroups and a steering committee. Rita Reeder, WISEWOMAN program manager, now heads the Quality Health Care workgroup, which is developing an enhanced referral system to improve WISEWOMAN outcomes. This workgroup also serves as the WISEWOMAN medical advisory committee. Anita Berwanger, HDSP program manager, heads the Steering Committee.

### *WISEWOMAN News*

WISEWOMAN is currently working to maximize the number of screenings provided to Show Me Healthy Women (SMHW) clients and is on target to reach their goal of 3,000 screenings by June 29, 2010. WISEWOMAN staff is working to simplify program evaluations, reduce provider paperwork and improve integration with SMHW. To simplify the organization of the lifestyle education materials for both providers and clients, a WISEWOMAN tote bag has been designed to hold their educational manual, cookbook, pedometer, exercise band and other client information. The WISEWOMAN grant application for FY2011 requested funding to increase the reach of services to 3,500 clients.

## *MU Offers Study Plan to Improve Health Literacy*

### *School of Health Professions Health Literacy certificate will be available this fall*

The cost of low health literacy - the difference between patients' abilities to understand health information and providers' abilities to effectively communicate complex medical information - is $106 billion to $238 billion annually, according to Pfizer, a leading biopharmaceutical company. To improve the health literacy of professionals and patients, the University of Missouri will offer a health literacy study emphasis beginning this fall. The MU School of Health Professions will be the first health professional training program in the country to offer a health literacy certificate to health professionals, including physical and occupational therapists, radiological technicians and administrators.

"The health literacy courses will provide health professionals with more thorough training of issues relating to health literacy and health compliance of patients with chronic illnesses and disabilities. Class topics will include culture and health literacy, religion and health literacy, health policy/health disparities, behavioral compliance and bioethics/legal issues. The certificate will be offered this fall through traditional and online classes. An estimated 300 students will be educated during the first two years based on the interest of students in the health sciences program," said Brick Johnstone, professor in the Department of Health Psychology, University of Missouri - Columbia.

"The Institute of Medicine has determined that many deaths are the result of low health literacy – failure in communication between patients and providers," said Herbert Goldberg, professor emeritus and associate dean emeritus in the University of Missouri School of Medicine. "Instructions from health care providers can be unclear or difficult to understand because of patients' educational levels, cultures, spiritual beliefs and other factors. This program will better train health professionals to address these issues."

Individuals with low health literacy have longer hospital stays, increased sickness, are less able to manage chronic diseases and less likely to receive physicals and tests that are important for early detection of diseases. Those most at risk for low health literacy include minorities, individuals ages 65 and older and those with low incomes.

"Many Americans, in general, are overweight, out of shape and have poor health habits," Johnstone said. "There is a need to improve compliance with suggested health treatments. When people go to the doctor and receive medication, that doesn't necessarily mean they will get better. We have to improve individuals' understanding of health issues and empower them to take control of their health. We also need to teach health care professionals about ways they can help people change their behaviors."

The Missouri Foundation for Health will fund the new health literacy emphasis program, with the agreement that the curriculum will be given to other health professionals, nursing and mental health programs throughout the state. The program is expected to be self-sustained through student tuition by 2012.

### *AHRQ Takes to the Airwaves to Communicate Vital Health Care Information to Spanish Speakers*

Federal Health and Human Services' (HHS) Agency for Healthcare Research and Quality (AHRQ) announced *Healthcare 411 en Español* - a new audio news series to provide Spanish speakers with evidence-based consumer information to help them stay healthy, prevent diseases, compare the effectiveness of various medical treatments, and obtain high-quality and safe health care.

Under this new initiative, AHRQ is producing two 60-second audio reports each month and distributing them to Spanish-language radio stations nationwide. Each audio segment includes an interview with a native Spanish-speaking AHRQ physician who discusses current issues such as the importance of regular screening exams for people with diabetes or how to prepare for a doctor's appointment. AHRQ posts the audio to its Healthcare 411 web site, where consumers can subscribe and download the segments to a computer or portable media device such as an MP3 player.

According to AHRQ's 2008 *National Healthcare Disparities Report*, Hispanics are 20 percent more likely to receive poorer health care than non-Hispanic whites, and the problem is especially acute among Hispanics who speak little or no English.

"Information is a powerful tool in the fight against the disparities that Hispanic Americans face every day," said AHRQ Director Carolyn M. Clancy, M.D. "Health care information in Spanish is particularly important for people who do not understand English or for whom printed information in English may have limited value because they do not read it easily."

The new initiative is part of a broader effort by AHRQ to reduce health disparities by providing information to Spanish-speaking Americans about their health and health care. Other elements in the effort include a monthly online health advice column called *Consejos de salud para tí* (Health Advice for You); *Staying Active and Healthy With Blood Thinners*, a 10-minute bilingual video about the safe and effective use of blood thinner drugs; and *Superhéroes*, a multimedia Spanish-language public service advertising campaign developed in partnership with the Ad Council that urges Hispanics to get the preventive health care tests they need. All of this information, and other brochures for consumers, is available on the AHRQ web page.

In addition, AHRQ is working with local and state health departments, hospitals, community and migrant health centers, as well as other organizations in areas with large or rapidly increasing Hispanic populations to get the audio segments and other Spanish-language information out to their constituencies through their Web sites or through community health education by "promotoras de salud" - lay health aides, many of whom work in community health centers.

To listen to the Healthcare 411 audio segments in Spanish, visit http://www.healthcare411.ahrq.gov and select "En Español." To subscribe, go to http://www.healthcare411.ahrq.gov/subscribe.aspx.
For more information, please contact AHRQ Public Affairs: (301) 427-1241 or (301) 427-1539.

# WOMEN'S HEALTH/DISPARITIES

### *Twelve-Year Follow-Up of American Women's Awareness of Cardiovascular Disease Risk and Barriers to Heart Health*

American women continue to die of heart disease and stroke at a rate unparalleled by other diseases. The last decade has witnessed intensive public efforts to educate women about their risk of heart disease, and a recent national survey documented that awareness of heart disease among women nearly doubled in 10 years. Despite the progress, there remains a persistent racial and ethnic minority gap in awareness. Recent research has demonstrated a positive correlation between awareness that cardiovascular disease (CVD) is the leading cause of death in women and recent action(s) taken to reduce CVD risk. These data suggest that continued educational campaigns, particularly those targeted to the highest-risk subgroups, could be important in reducing the burden of CVD among women.

Beginning in 1997, the American Heart Association (AHA) conducted triennial surveys in random samples of women to track their awareness, knowledge, and perceptions related to heart disease and stroke according to race/ethnicity and age. The purpose of the present study was to assess the current level of awareness, knowledge, and perceptions in a nationally representative sample including an oversampling of African-American, Hispanic, and Asian women and to examine trends over time. An additional goal was to explore barriers to women taking preventive action.

Findings include the following:

- Although levels of heart disease awareness have improved since 1997, almost half of women remain unaware that coronary heart disease is the leading cause of death among women and the gap in awareness among minorities is closing.
- The present study documents that only about one half of women would call 9-1-1 if they thought they were having symptoms of a heart attack.
- A substantial percentage of women perceive that unproven preventive therapies will reduce their risk of heart disease.
- Women support environmental approaches such as increased access to healthy foods, recreational facilities and enhanced nutrition labeling to lower risk.
  **http://circoutcomes.ahajournals.org/cgi/content/full/3/2/120**

Study highlights:

### *Walking associated with lower stroke risk in women*

- In a nearly 12-year follow-up study, women who walked two or more hours per week had a significantly lower risk of stroke than women who did not walk.
- Women who reportedly walked at a brisk pace (3 miles per hour or faster) also had a significantly lower risk of stroke than women who didn't walk, according to a large, long-term study reported in ***Stroke: Journal of the American Heart Association***.

  The risks were lower for total stroke, clot-related (ischemic) stroke and bleeding (hemorrhagic) stroke, researchers said.

***Walking associated with lower stroke risk in women (cont.)***

***Compared to women who did not walk:***

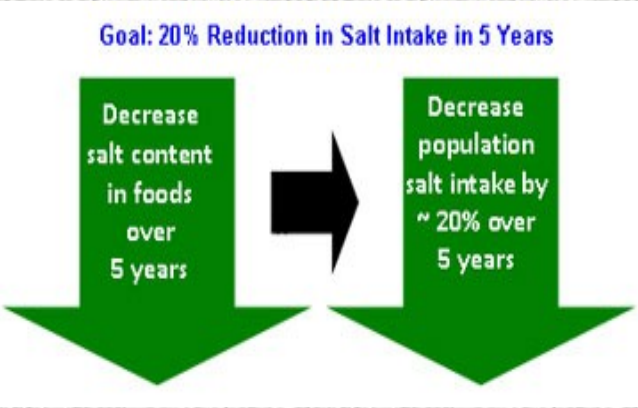
- Women who usually walked at a brisk pace had a 37 percent lower risk of any type of stroke and those who walked two or more hours a week had a 30 percent lower risk of any type of stroke.
- Women who typically walked at a brisk pace had a 68 percent lower risk of hemorrhagic stroke and those who walked two or more hours a week had a 57 percent lower risk of hemorrhagic stroke.
- Women who usually walked at a brisk pace had a 25 percent lower risk of ischemic stroke and those who usually walked more than two hours a week had a 21 percent lower risk of ischemic stroke — both "borderline significant," according to researchers.

"Physical activity, including regular walking, is an important modifiable behavior for stroke prevention," said Jacob R. Sattelmair, M.Sc., lead author and doctoral candidate in epidemiology at Harvard School of Public Health in Boston, MA. "Physical activity is essential to promoting cardiovascular health and reducing risk of cardiovascular disease, and walking is one way of achieving physical activity."

"Though the exact relationship among different types of physical activity and different stroke subtypes remains unclear, the results of this specific study indicate that walking, in particular, is associated with lower risk of stroke," Sattelmair said.

http://americanheart.mediaroom.com/index.php?s=43&item=1004

# RISK FACTOR NEWS – SODIUM




***Cutting Sodium, Improving Health***

The New York City Health Department is coordinating a nationwide effort to prevent heart attacks and strokes by reducing the amount of salt in packaged and restaurant foods. Americans consume roughly twice the recommended limit of sodium each day – causing widespread high blood pressure and placing millions at risk of heart attack and stroke. This is not a matter of choice. Only 11 percent of the sodium in our diets comes from our own saltshakers; nearly 80 percent is added to foods before they are sold. The National Salt Reduction Initiative is a coalition of cities, states and health organizations working to help food manufacturers and restaurants voluntarily reduce the amount of salt in their products. The goal is to reduce Americans' salt intake by 20 percent over five years. This will save tens of thousands of lives each year and billions of dollars in health care costs.

***Sodium and Cardiovascular Disease***

- Diets high in sodium increase blood pressure, a leading risk factor for heart attacks and stroke.
- These conditions cause 23,000 deaths in New York City alone each year - more than 800,000 nation wide and cost Americans billions in healthcare expenses.
- Most Americans eat almost twice the recommended limit of sodium each day.
- Even people with normal blood pressure benefit from lowering their sodium intake.

http://www.nyc.gov/html/doh/html/cardio/cardio-salt-initiative.shtml

# RISK FACTOR NEWS – CHOLESTEROL

***Incidence of High Cholesterol Drops in U.S.***
***Down by 30 percent, but those with high levels often don't know it, study finds***

The good news is that a new report shows the percentage of American adults with high low density lipoprotein (LDL) cholesterol, decreased by about one-third between 1999 and 2006. The bad news is that too many of those who have dangerously high levels of LDL cholesterol don't know it, said study author Dr. Elena V. Kuklina, an epidemiologist and senior service fellow at the CDC. Her research is published in the November 18, 2009 issue of the *Journal of the American Medical Association*.

"In the group with high LDL cholesterol, 60 percent of these people do not know they have this condition," Kuklina said. "They are in two major groups - those who have never been screened, and those who have been screened but not diagnosed."

While many studies have found that overall cholesterol levels in American adults are decreasing, there has not been much information on LDL levels, Kuklina said. The study she did with colleagues at the CDC used data from consecutive results of the National Health and Nutrition Examination Survey. It found that overall prevalence of high LDL cholesterol levels decreased from 31.5 percent in 1999-2000 to 21.2 percent in 2005-2006.

A troubling finding was that the greatest incidence of dangerously high LDL cholesterol is in the high-risk group. The prevalence of high LDL did decrease in that group, but only from 69.4 percent in the first survey to 58.9 percent in the last survey, the study authors reported.

As for the cause of the overall reduction, "we don't know why, we can only speculate," Kuklina said. It could be changes in lifestyle, such as better diet, or it could be more widespread use of cholesterol-lowering medications such as statins, she said. "But we still have many people we could put on statins," Kuklina noted.

http://jama.ama-assn.org/cgi/content/full/302/19/2104

***Prevalence of Abnormal Lipid Levels Among Youths - United States, 1999-2006***

Cardiovascular disease (CVD) is the leading cause of death among adults in the United States. CVD risk factors, including abnormal lipid levels and elevated body mass index (BMI), often emerge during childhood and adolescence. In 2008, the American Academy of Pediatrics (AAP) established recommendations for targeted screening of youths aged ≥2 years for abnormal blood lipid levels. To provide prevalence data on abnormal lipid levels among youths, eligibility for lipid screening based on BMI, and eligibility for therapeutic lifestyle counseling among overweight youths, CDC analyzed results collected in 1999-2006 from National Health and Nutrition Examination Survey (NHANES).

This report describes the results of that analysis, which found that the prevalence of abnormal lipid levels among youths aged 12-19 years was 20.3 percent. This prevalence varied by BMI; 14.2 percent of normal weight youths, 22.3 percent of overweight and 42.9 percent of obese youths had at least one abnormal lipid level.

***Prevalence of Abnormal Lipid Levels Among Youths - United States, 1999-2006 (continued)***

Among all youths, 32 percent had a high BMI and therefore would be candidates for lipid screening under AAP recommendations. Given the high prevalence of abnormal lipid levels among youths who are overweight and obese in this study, clinicians should be aware of lipid screening guidelines, especially recommendations for screening youths who are overweight or obese.

Based solely on their BMI (15 percent overweight youths and 17 percent obese youths), 32 percent of all youths would be candidates for lipid screening. The percentages of overweight or obese youths who were candidates for therapeutic lifestyle counseling based on lipid levels were 22.3 percent and 42.9 percent, respectively.

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5902a1.htm

# RISK FACTOR NEWS – OBESITY AND RISK OF STROKE

***As Obesity Increases, So Does Stroke Risk***

**Especially high rate among African-American's may have genetic cause, researcher says**

The study, which followed 13,549 middle-aged Americans for 19 years, looked at stroke risk associated with several measures of obesity, emphasizing body mass index (BMI), a ratio of weight and height, but also such measures as waist circumference. "We found that the risk of stroke was increased with each measure of obesity," said Dr. Hiroshi Yatsuya, a visiting associate professor of public health at the University of Minnesota and lead author of a report published online January 21, 2010, in *Stroke*.

The degree of risk varied by sex and ethnic group. For example, people in the highest BMI category had a 1.43 to 2.12 times higher risk for stroke, with variations by race and sex. The risk ratios ranged from 1.65 to 3.19 when obesity was measured by waist circumference and from 1.69 to 2.55 when the ratio of waist to hip was used. The risk was especially high for blacks, the study found. For example, the incidence of stroke was 1.2 per 1,000 person-years for white women and 4.3 per 1,000 person-years for African-American women. In the highest BMI category, rates ranged from 2.2 for white women to 8.0 for African-American men. Dr. Yatsuya stated that the higher incidence of stroke for African-Americans has been found in many previous studies, and is also seen in Asians. "The reason is unknown, but there may be a genetic difference," he said.

An increased risk linked to weight was evident in every ethnic group, the study found. Throughout, men and women in the highest obesity category had about double the risk for stroke as did those in the lowest category. Obesity appears to act by increasing the incidence of high blood pressure and diabetes, two major risk factors for stroke and other cardiovascular problems, the study indicated. When blood pressure readings and diabetes were factored into the calculations, the association between obesity was weakened, "suggesting these major risk factors explain much of the obesity-stroke association," Yatsuya said.

### *As Obesity Increases, So Does Stroke Risk (continued)*

Dr. Yatsuya stated that despite the mountain of evidence linking obesity and stroke, we do not have clear evidence that obesity reduction reduces stroke rate. "Controlled trials are needed to prove that obesity prevention or reduction reduces stroke risk", he said.

Daniel Lackland, a professor of epidemiology at the Medical University of South Carolina and a spokesman for the American Heart Association, said that the exact relationship between obesity and stroke risk has not been established, but the new study "contributes to a better understanding of it." "Obesity contributes to both diabetes and hypertension [high blood pressure], which are associated with stroke and at an earlier age," Lackland said.

http://stroke.ahajournals.org/cgi/content/abstract/41/3/417

### *Excess Body Weight and Incidence of Stroke: Meta-Analysis of Prospective Studies With 2 Million Participants*

Researchers found that a systematic review of the prospective studies addressing the relationship of overweight and obesity to major stroke subtypes is lacking. They evaluated the occurrence of a graded association between overweight, obesity, and incidence of ischemic and hemorrhagic stroke by a meta-analysis of cohort studies.

Twenty-five studies were included, with 2,274,961 participants and 30,757 events. Relative risk for ischemic stroke was 1.22 (95 percent Confidence Interval (CI), 1.05–1.41) for overweight and 1.64 (95 percent CI, 1.36–1.99) for obesity, whereas relative risk for hemorrhagic stroke was 1.01 (95 percent CI, 0.88–1.17) and 1.24 (95 percent CI, 0.99–1.54), respectively. Subgroup and meta-regression analyses ruled out gender, population average age, body mass index and blood pressure, year of recruitment, year of study publication and length of follow-up as significant sources of heterogeneity. The additional analyses relying on the published multivariate estimates of risk provided qualitatively similar results.

***Conclusions***—Overweight and obesity are associated with progressively increasing risk of ischemic stroke, at least in part, independently from age, lifestyle and other cardiovascular risk factors.

http://stroke.ahajournals.org/cgi/content/short/STROKEAHA.109.576967v1?rss=1

# HEART DISEASE AND STROKE DATA DEVELOPMENTS

***CDC Releases First-Ever County-Level Report on Heart Disease Hospitalizations: New maps chart wide disparities based on race/ethnicity and geographic location***

Heart disease hospitalization rates among Americans aged 65 years and older vary substantially depending on where they live, according to a report released today by the Centers for Disease Control and Prevention.

The "Atlas of Heart Disease Hospitalizations Among Medicare Beneficiaries" shows that the highest hospitalization rates occur among African -Americans compared to other racial and ethnic groups. Hospitalization rates were also highest in counties located primarily in Appalachia, the Mississippi Delta, Texas and Oklahoma. A significant number of Medicare beneficiaries live in counties without hospitals capable of providing specialized heart disease treatment.

The atlas provides for the first time statistics about heart disease hospitalizations at the county level. Data came from the Medicare records of more than 28 million people each year between 2000 and 2006 in the 50 states, Washington, D.C., Puerto Rico and the U.S. Virgin Islands. The report documented an average of 2.1 million hospitalizations for heart disease each year. "These data bring into sharp focus the differences in heart disease that exist across this country," said Michele Casper, Ph.D., epidemiologist in CDC's Division for Heart Disease and Stroke Prevention. "Importantly, with county-level information, health professionals at the local, state and national levels will be able to tailor heart disease prevention programs and polices to the needs of people living in communities with high rates of heart disease."

Heart disease is the nation's leading cause of death. In 2010, it is estimated to cost the United States $316.4 billion in health care services, medications and lost productivity. In states with the highest heart disease hospitalization rate, the burden is generally two times higher than states with the lowest rates. For instance, in Louisiana there were 95.2 hospitalizations for every 1,000 Medicare beneficiaries, compared with 44.8 in Hawaii over the same six-year period.

The atlas also brings to light significant racial and ethnic disparities. The heart disease hospitalization rate is much higher among African - Americans (85.3 hospitalizations per 1,000 beneficiaries) than for whites (74.4 per 1,000) or Hispanics (73.6 per 1,000). While these rates declined slowly between 2000 and 2006 for Hispanic and white Americans aged 65 years and older, they remained steady among older African-Americans.

The atlas also points out geographical differences in access to hospitals with the capability to treat heart disease patients. In 2005, 21 percent of all counties in the United States had no hospital, and 31 percent lacked a hospital with an emergency room. Specialized cardiac services are even more limited, with 63 percent of U.S. counties lacking a cardiologist outside the Veterans Affairs system.

"Heart disease is largely preventable and reducing the toll of this disease on society is a national priority," said Darwin Labarthe, M.D., Ph.D., director of CDC's Division for Heart Disease and Stroke Prevention. "With targeted public health efforts, such as prevention and early identification of risk factors, and increased access to appropriate medical care, the burden of heart disease can be reduced."

The atlas is the sixth in a series of CDC atlases related to heart disease and stroke. The full atlas is available at

http://www.cdc.gov/dhdsp/library/heart_atlas/index.htm

# DATA DEVELOPMENTS (continued)

### *Trends in Place of Death for Heart Disease and Stroke: Missouri Residents 1995, 1999, 2005, 2007 and 2008*

Deaths due to heart disease continued to decline between 1995 and 2008. The number of Missourians who died due to heart disease declined nearly 21 percent. All institutional settings including: hospital inpatient, outpatient and emergency rooms along with nursing homes experienced a decline in heart disease deaths. However, heart disease deaths at locations outside these institutions ***increased*** by 12 percent.

**Trends in Place of Death for Heart Disease and Stroke: Missouri Residents 1995, 1999, 2005, 2007 and 2008**

| | Number of Deaths | | | | | Change | Percent Change |
|---|---|---|---|---|---|---|---|
| ***Heart Disease*** | *1995* | *1999* | *2005* | *2007* | *2008* | *1995-2008* | *1995-2008* |
| *Hospital* | 9,293 | 8,753 | 6,300 | 5,907 | 5,822 | -3,471 | -37.4 |
| Inpatient | 6,535 | 6,170 | 4,422 | 4,061 | 3,967 | -2,568 | -39.3 |
| Outpatient/ER | 2,241 | 2,237 | 1,691 | 1,751 | 1,752 | -489 | -21.8 |
| Dead On Arrival | 461 | 326 | 179 | 90 | 99 | -362 | -78.5 |
| Unknown | 56 | 20 | 8 | 5 | 4 | -52 | -92.9 |
| Nursing Home | 4,993 | 5,258 | 4,336 | 4,209 | 4,190 | -803 | -16.1 |
| Outside Facility | 4,049 | 3,943 | 4,182 | 4,147 | 4,538 | 489 | 12.1 |
| Total | 18,335 | 17,954 | 14,818 | 14,263 | 14,550 | -3,785 | -20.6 |

| | | | | | | Change | Percent Change |
|---|---|---|---|---|---|---|---|
| ***Stroke*** | *1995* | *1999* | *2005* | *2007* | *2008* | *1995-2008* | *1995-2008* |
| *Hospital* | 2,125 | 2,042 | 1,628 | 1,586 | 1,531 | -594 | -28.0 |
| Inpatient | 2,006 | 1,929 | 1,522 | 1,475 | 1,425 | -581 | -29.0 |
| Outpatient/ER | 101 | 99 | 102 | 110 | 104 | 3 | 3.0 |
| Dead On Arrival | 11 | 7 | 2 | 0 | 0 | -11 | -100.0 |
| Unknown | 7 | 7 | 2 | 1 | 2 | -5 | -71.4 |
| Nursing Home | 1,483 | 1,661 | 1,324 | 1,222 | 1,302 | -181 | -12.2 |
| Outside Facility | 323 | 315 | 364 | 389 | 419 | 96 | 29.7 |
| Total | 3,931 | 4,018 | 3,316 | 3,197 | 3,252 | -679 | -17.3 |

Similar to the pattern of heart disease deaths, deaths due to stroke continued to decline between 1995 and 2008 as well. The number of Missourians who died due to stroke declined 17 percent. Hospital inpatient and nursing homes experienced a decline in stroke deaths. However, stroke deaths at hospital outpatient and emergency rooms increased slightly and stroke deaths outside institutional settings ***increased*** nearly 30 percent**.** Two significant advances have attributed to the decline in heart disease and stroke mortality rates: new therapeutic approaches and the implementation of prevention measures. Treatments like angioplasty, bypass surgery, and implementation of defibrillators, are now considered the standard of care. Treatment for hypertension and elevated cholesterol along with the widespread use of aspirin has also made major contributions to reducing deaths from heart disease and stroke.

## *County Health Rankings: Mobilizing Action Toward Community Health*

The *County Health Rankings* show us that where we live matters to our health. The health of a community depends on many different factors – ranging from individual health behaviors, education and jobs, to quality of health care, to the environment. This first-of-its-kind collection of 50 reports – one per state – helps community leaders see that where we live, learn, work and play influences how healthy we are and how long we live. The Robert Wood Johnson Foundation is collaborating with the University of Wisconsin Population Health Institute to develop these Rankings for each state's counties. This model has been used to rank the health of counties in Wisconsin for the past six years.

The *County Health Rankings* are a key component of the Mobilizing Action Toward Community Health (MATCH) project. MATCH is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

This web site provides access to the 50 state reports, ranking each county within the 50 states according to its health outcomes and the multiple health factors that determine a county's health. Each county receives a summary rank for its health outcomes and health factors and also for the four different types of health factors: health behaviors, clinical care, social and economic factors and the physical environment. Each county can also drill down to see specific county-level data (as well as state benchmarks) for the measures upon which the rankings are based.

The *Rankings* are a real "call to action" for state and local health departments to develop broad-based solutions with others in their community so all residents can be healthy. The *Rankings* team is working with health departments to help them take advantage of the discussions and opportunities that will arise from the release of the *Rankings*. But efforts will also be made to mobilize community leaders outside the public health sector to take action and invest in programs and policy changes that address barriers to good health and help residents lead healthier lives. That includes educating elected and appointed officials, including mayors, governors, health commissioners, city/county councils, legislators and staff; businesses and employers; the health care sector and others.

This *County Health Rankings* web site will serve as a cornerstone of the project, a place where people from all these sectors can find *Rankings* data, as well as action steps and the latest news about the multiple factors that determine our health.

http://www.countyhealthrankings.org/missouri

# RESOURCES/TOOLS FOR INTERVENTIONS

### *Community Health Worker's Sourcebook: A Training Manual for Preventing Heart Disease and Stroke*

In the United States, community health workers (CHWs) help us meet our national Healthy People goals by conducting community-level activities and interventions that promote health and prevent diseases and disability. CHWs are trusted, respected members of the community who serve as a bridge between their community members and professionals in the field of health and human services. They provide an important service by establishing and improving relationships between these professionals and members of the community. As community health educators and role models, CHWs promote, encourage, and support positive, healthful self-management behaviors among their peers. As community advocates, CHWs help people get the services and follow-up care they need. CHWs serve as patient and community advocates, as "coaches" for disease management, and as patient "navigators," guiding patients through the health care system. They also strengthen their community's understanding and acceptance of medical care. The recognition of their successes has led to recommendations that CHWs be included as members of health care teams to help eliminate racial and ethnic disparities in health care. The sourcebook contains information and activities on heart disease and stroke and on the major risk factors for these diseases in adults. It also contains information on risk factors that begin in childhood. Additionally, it addresses people's adherence to treatment and their communication with health care providers. Because the sourcebook contains some technical information, it is recommended for CHWs who already have some experience in their profession.

http://www.cdc.gov/dhdsp/library/chw_sourcebook/pdfs/sourcebook.pdf

### *Cardiovascular Science in Women: Bringing the Issues to the Forefront*

The April 1, 2009 edition of *Stroke,* has focused in part on research pertaining to women and stroke. Check out the Go Red for Women Section: http://stroke.ahajournals.org/content/vol40/issue4

### *Public Health Foundation Learning Resource Center*

The Learning Resource Center at the Public Health Foundation has a plethora of video products of interest including "**The Hidden Epidemic: Heart Disease in America"** in DVD format. Check out their resource materials at this link: http://bookstore.phf.org/index.php?cPath=80

### *HealthyWomen*

HealthyWomen (HW) is the nation's leading independent health information source for women. For more than 20 years, women have been coming to HW for answers to their most pressing and personal health care questions. Through its wide array of online and print publications, HW provides health information that is original, objective, reviewed by medical experts and reflective of the advances in evidence-based health research The **Health Center - Heart Health** has considerable information of particular interest to women.

http://www.healthywomen.org/healthcenter/heart-health

# CONFERENCES/WORKSHOPS

## Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke 2010 Scientific Sessions

**Location:** Omni Shoreham Hotel - Washington, DC

**Conference Dates:** May 19-21, 2010

http://www.americanheart.org/presenter.jhtml?identifier=3057695

## Effectiveness In...
### Capacity Building Workshop Series

Nonprofit staff, board members and other volunteers who are in leadership positions within health-related nonprofit organizations will find this series filled with practical advice and information they can put to immediate use. The workshops are designed to be interactive, informative and improve the management, leadership, and fund-raising skills of key staff and volunteers. This series is especially designed for nonprofit organizations based in Missouri's rural communities, recognizing their limited financial and volunteer resources. Participants will be able to problem-solve, apply the learning to their own organization, and network with other participants.

### Effectiveness In...2010 Workshop Schedule

**Developing a Dynamic Board: *A Key to Nonprofit Effectiveness***

**November 3 - Springfield | TBD**

**Basics of Volunteer Management**

**November 9 - St. Louis**

**Design Your Programs with the End in Mind *(six hour workshop)***

**September 14 - Cape Girardeau**

**Guide to the New 990**

**May 25 - St. Louis**

**September 28 - Jefferson City**

**A Beginner's Guide to Fundraising**

**October 26 - Cape Girardeau | register**

**Nonprofit Accounting and Financial Management**

**November 2 - Joplin | register**

# Effectiveness In….2010 Workshop Schedule (continued)

**Fundraising in the New Economy**

**September 29 - Springfield**

**A Beginner's Guide to Fundraising**

**October 26 - Cape Girardeau**

**Nonprofit Accounting and Financial Management**

**November 2 - Joplin**

**Maximize Major Giving through Practical Individual Donor Research**

**November 10 - St. Louis**

**Register for these workshops at the following website:** http://nonprofitservices.org/workshops.html

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*If you have additional topics that would be of interest to you for future editions, please contact Kris Kummerfeld, Editor, at kris.kummerfeld@dhss.mo.gov or (573) 522-2879.*